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Where are MOOCs going? What is the future of distance learning?
Downes, Stephen

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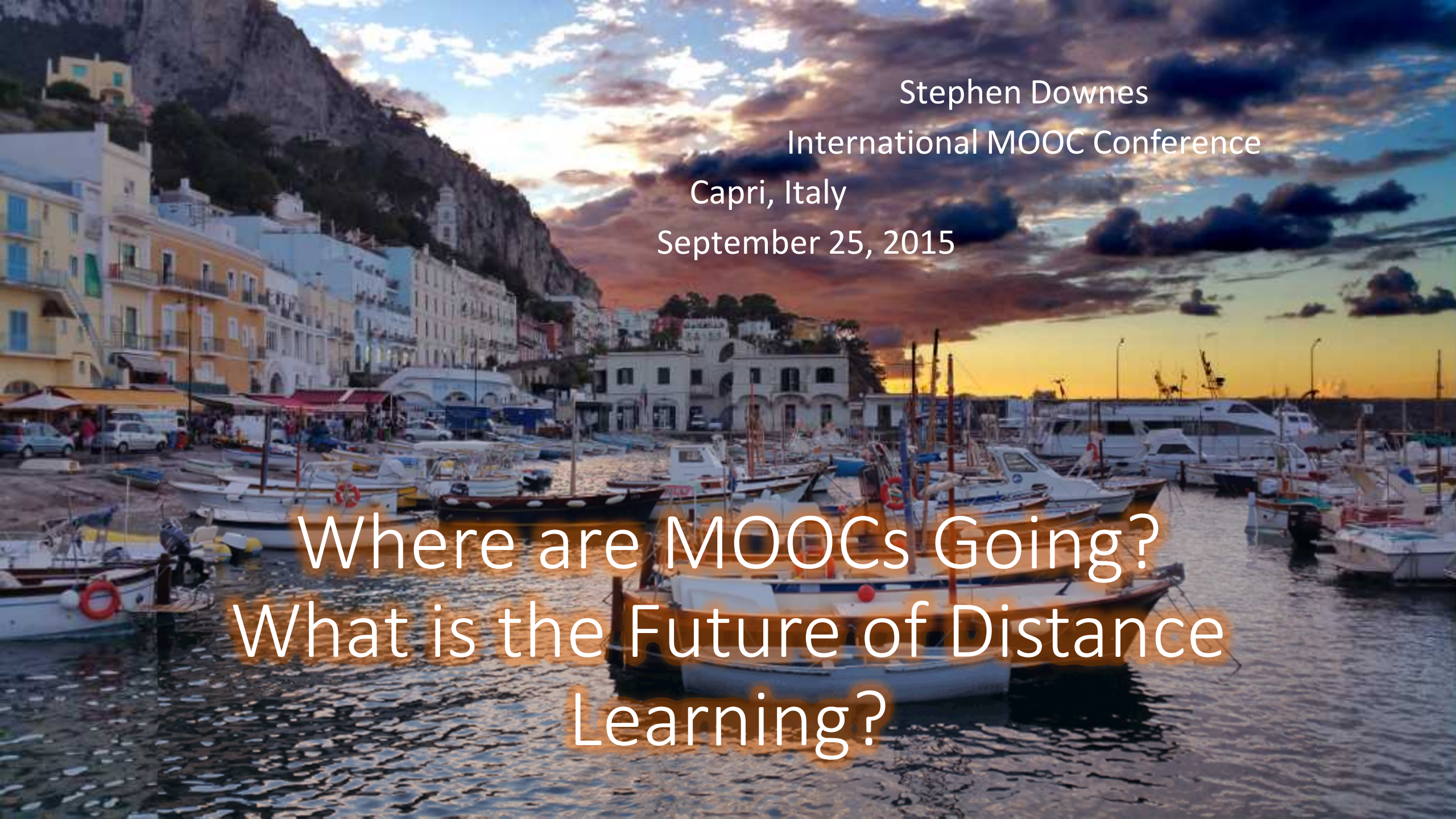
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Stephen Downes

International MOOC Conference

Capri, Italy

September 25, 2015

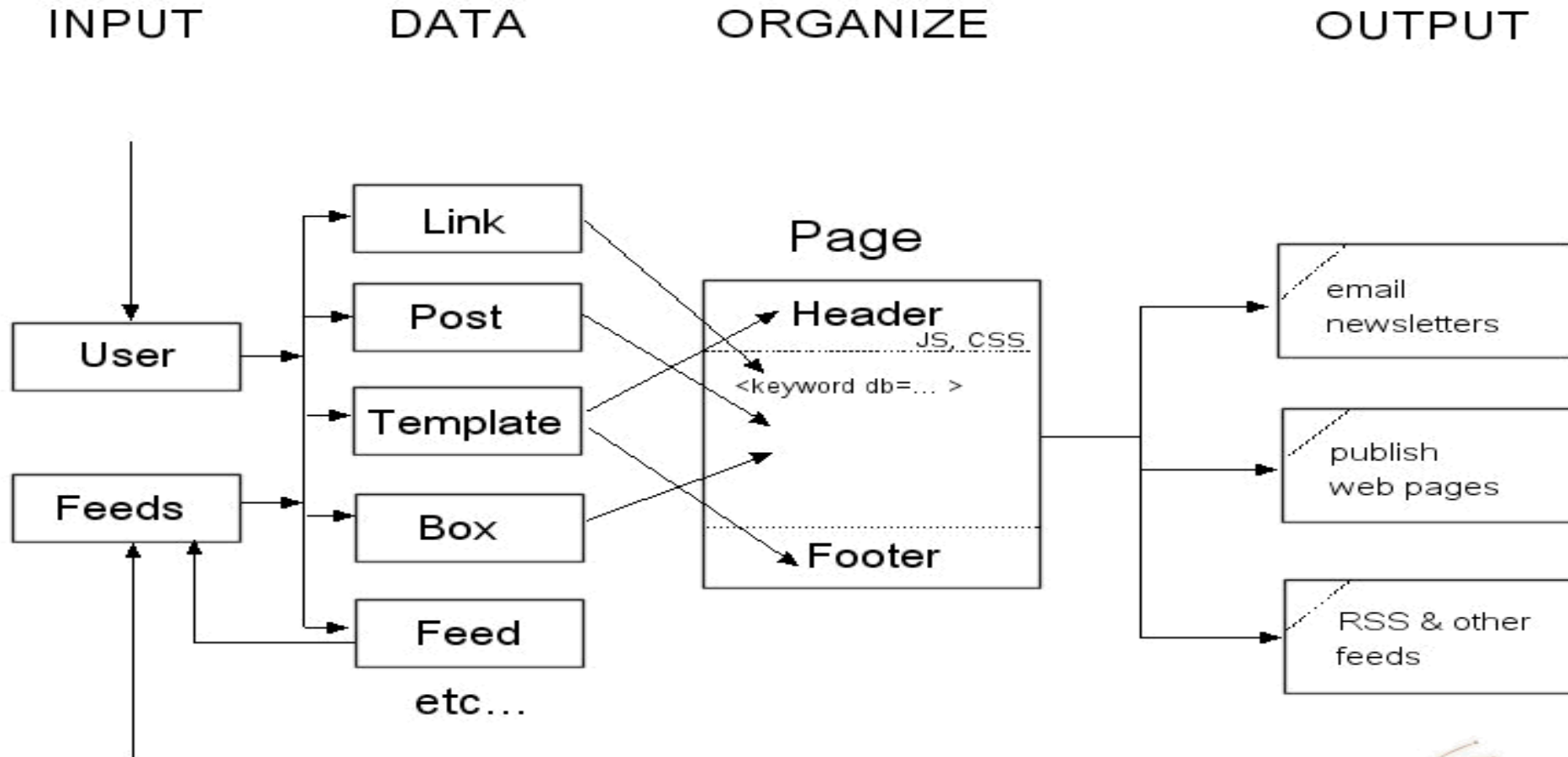
Where are MOOCs Going?
What is the Future of Distance
Learning?

MOOC Revolution?

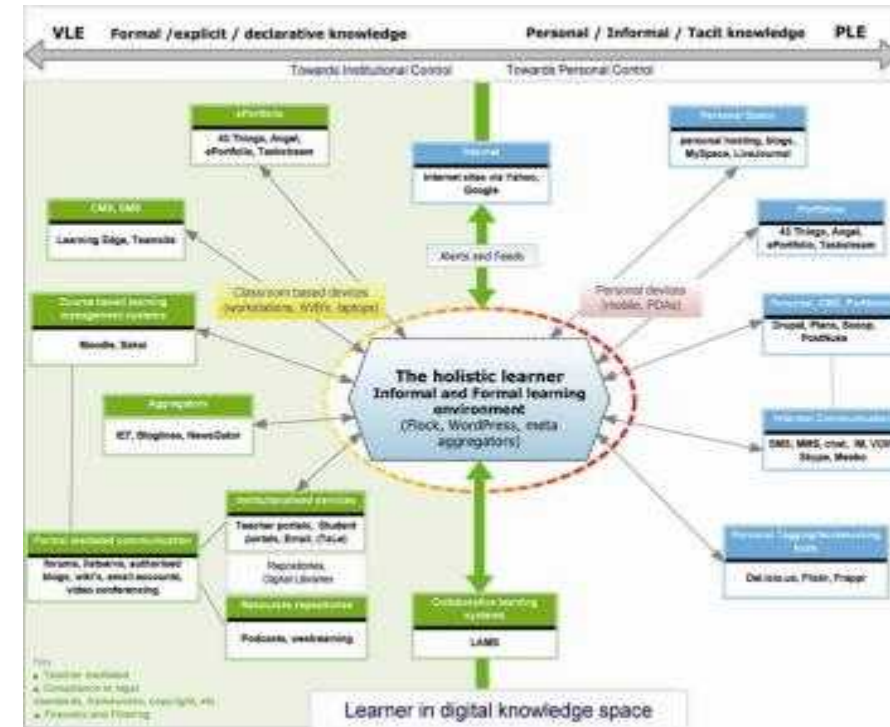
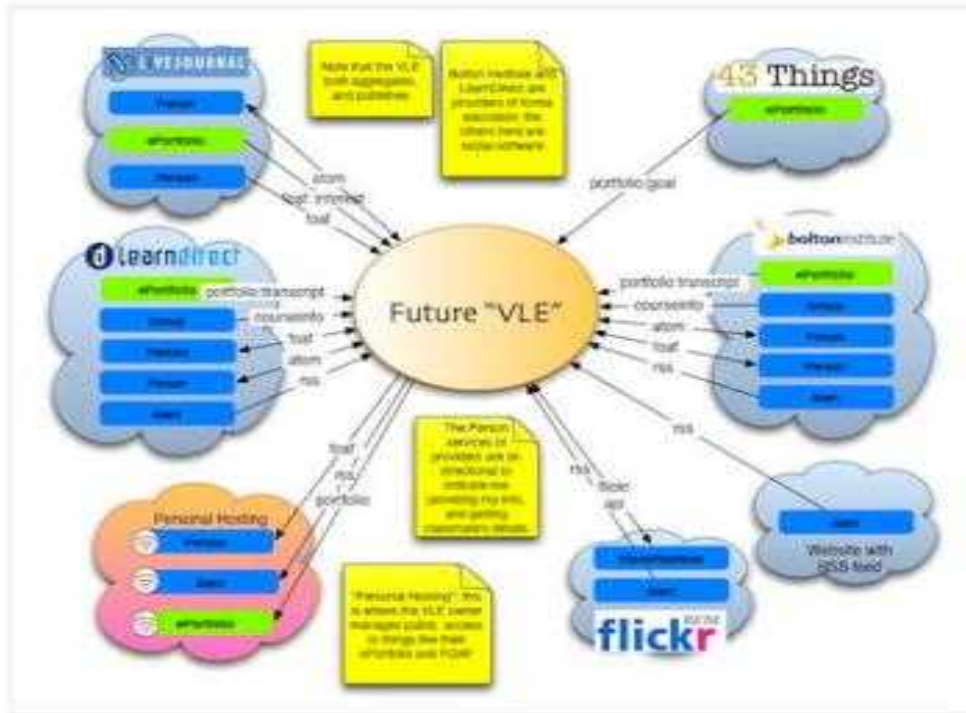
- Most of the ‘MOOC revolution’ has missed the point of MOOCs
 - Not simply that they forgot the meaning of the word ‘open’
 - They also forgot the meaning of the word ‘massive’
 - It is *not* just another word for ‘broadcast’
 - What does it mean to support universal access to learning and education?

- Our primary innovation was two-fold:
 - A *distributed* platform, that enabled scaling
 - Courses based on *practice* and individual *perspective*
 - Not many people getting the same experience & content
 - Many people each getting personal experience & content

gRSShopper



The design was based on putting the learner at the centre



Scott Wilson (left), Tim Hand (right)

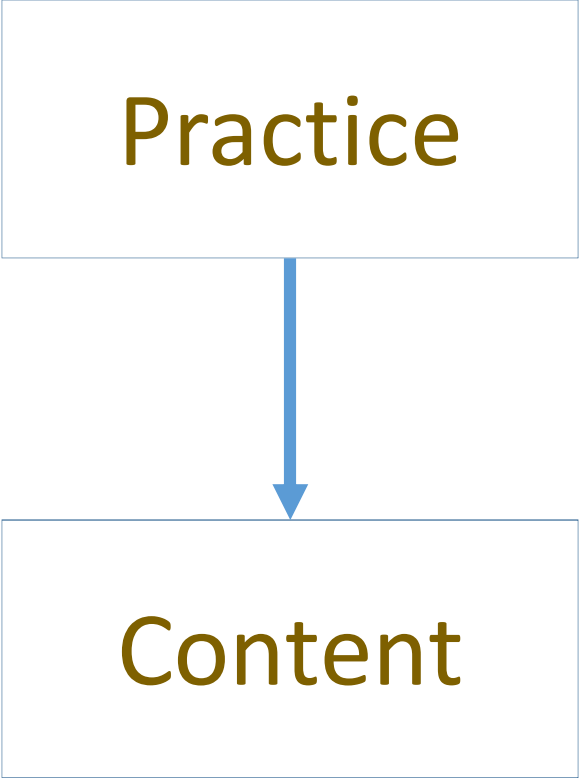
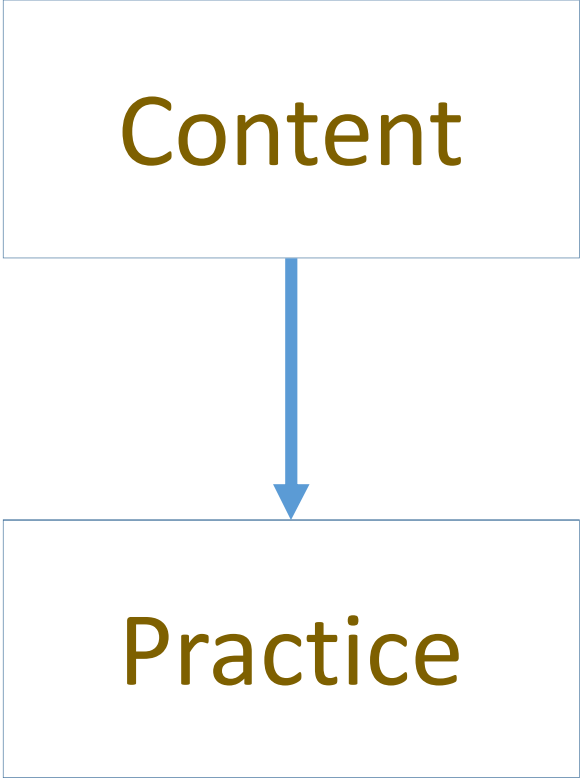
<https://www.google.com/search?q=ple+diagrams>

http://www.edtechpost.ca/ple_diagrams/index.php/mind-map-3

Personal vs. Personalized

- Compare between:
 - Personalized health care (something the National Health Service provides)
 - Personal health care (something you do for yourself)
- Compare the focus:
 - Focus on the institution, institutional needs
 - Focus on the person, personal needs (not just 'student')

Two Approaches...



Two Approaches...

Defines an ideal state

Content



Practice

TEST

Person tests you

Defines a desired state

Practice

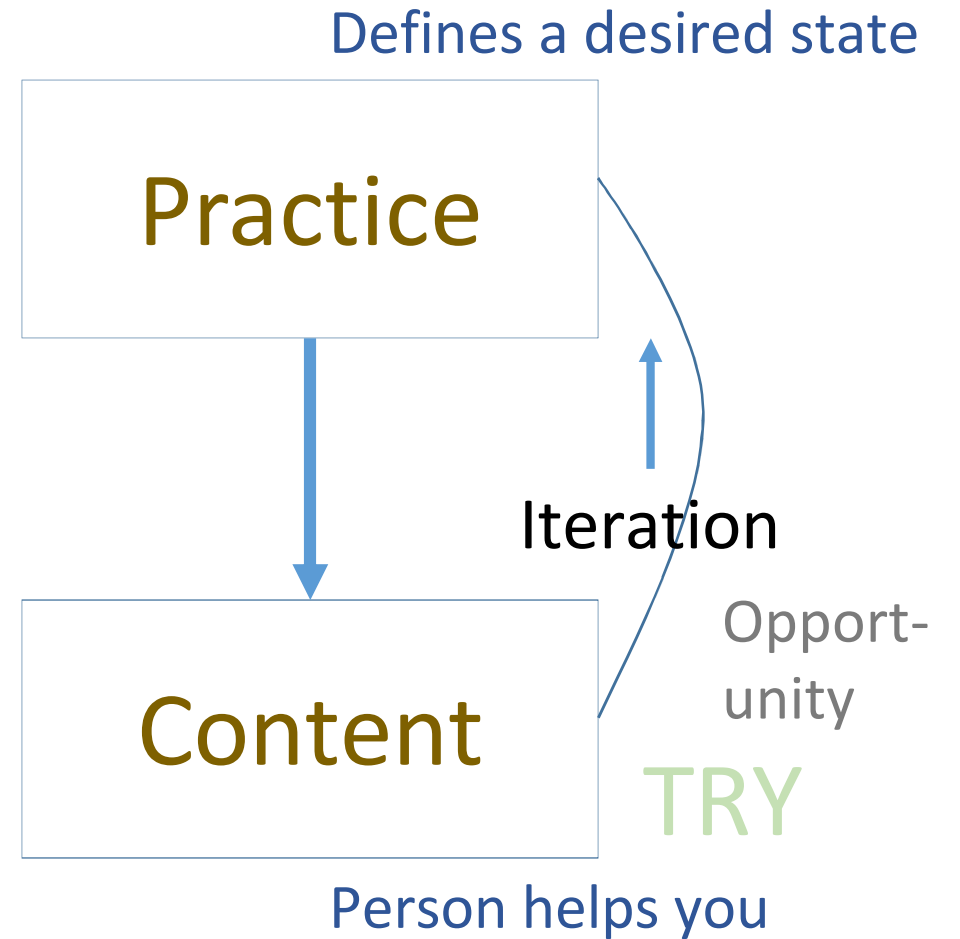
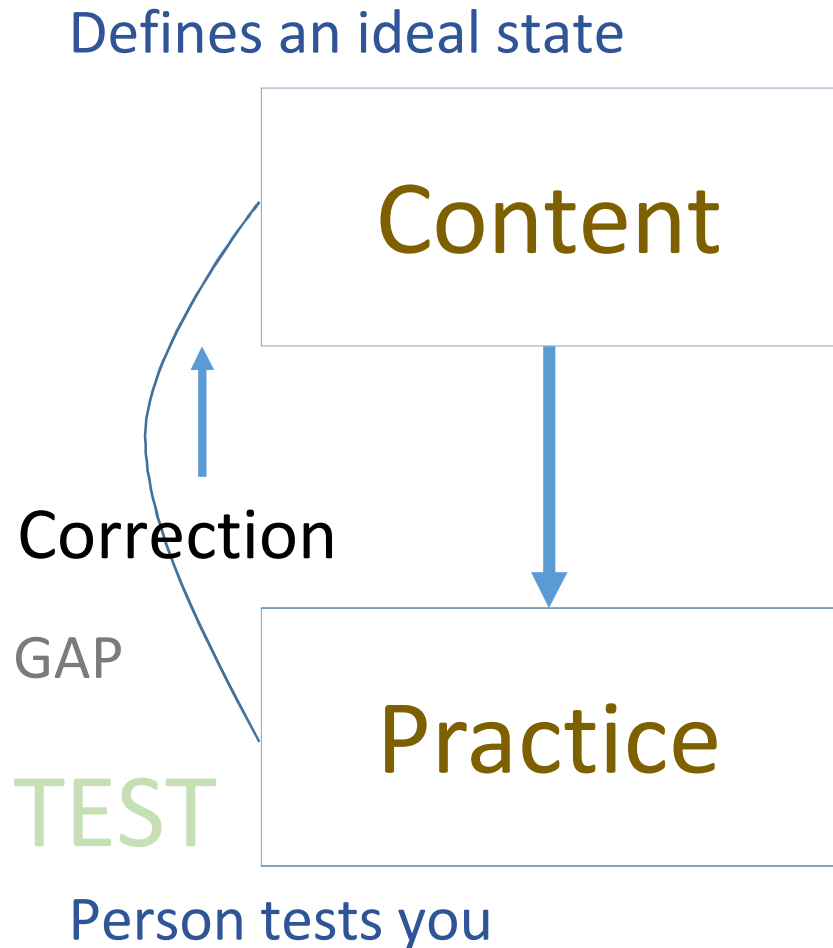


Content

TRY

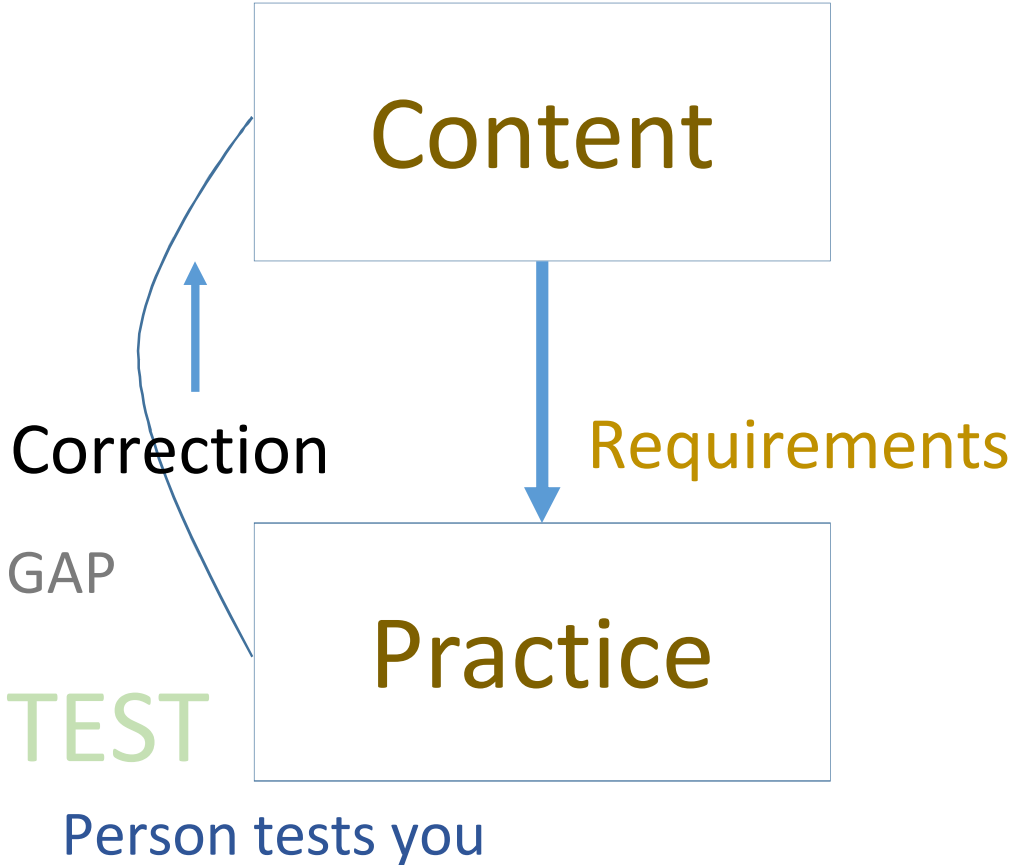
Person helps you

Two Approaches...



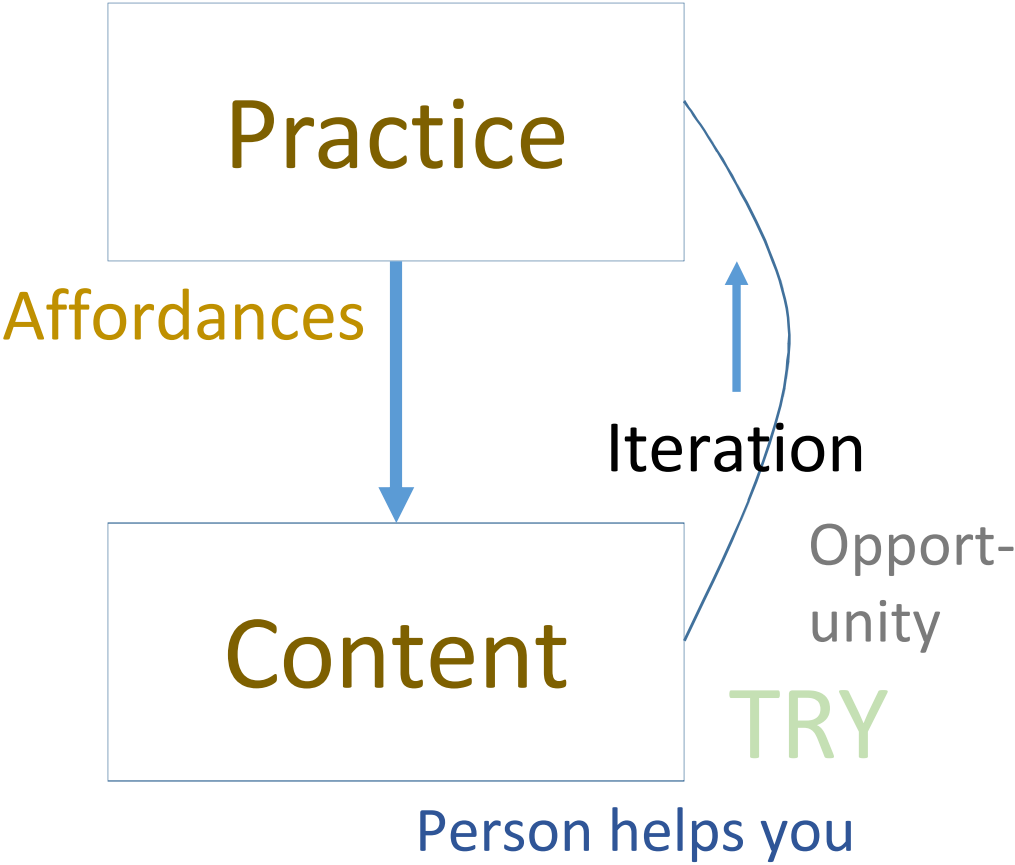
Library

Defines an ideal state



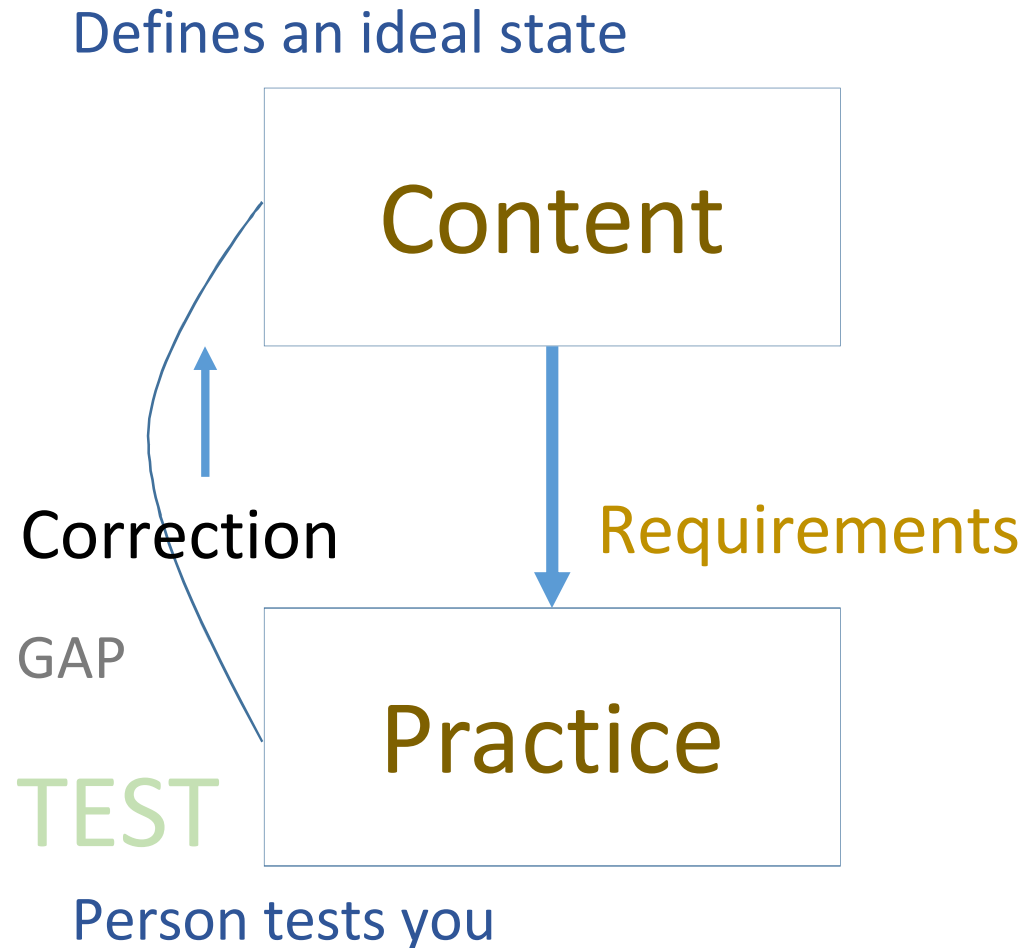
Environment

Defines a desired state



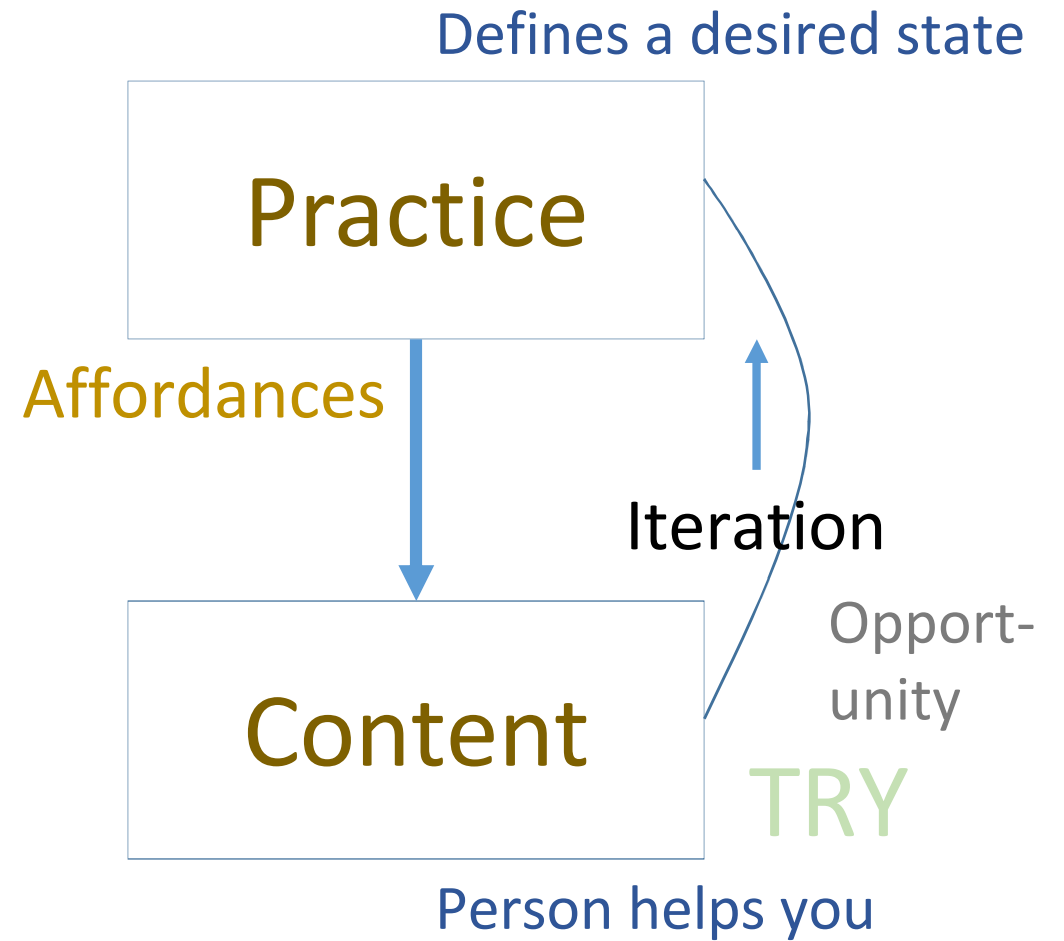
Personalized

We do for you



Personal

You do for yourself



xLearning vs cLearning



contents

engagement

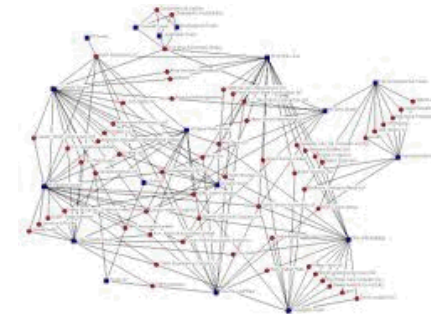
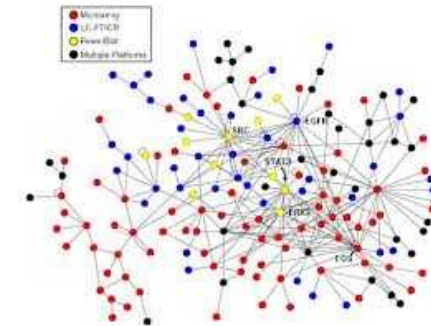
networks



<http://www.corestandards.org/>



<http://www.magnet.edu/>

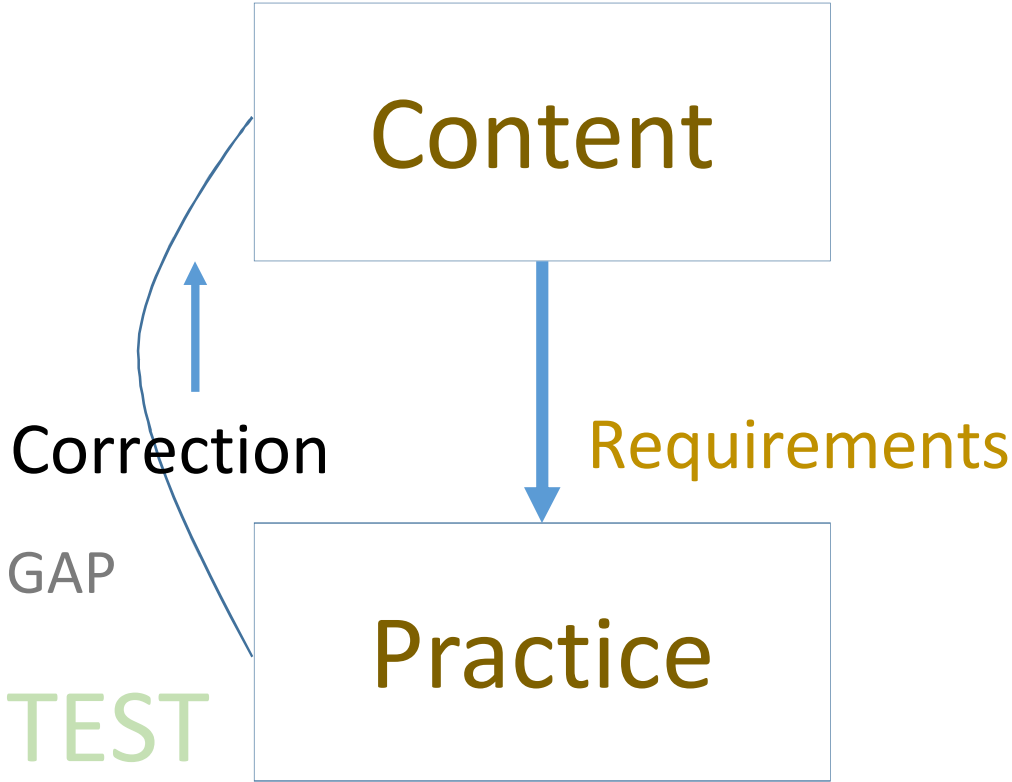


<http://lisahistory.net/wordpress/2012/08/three-kinds-of-moocs/>

Personalized

We do for you

Defines an ideal state

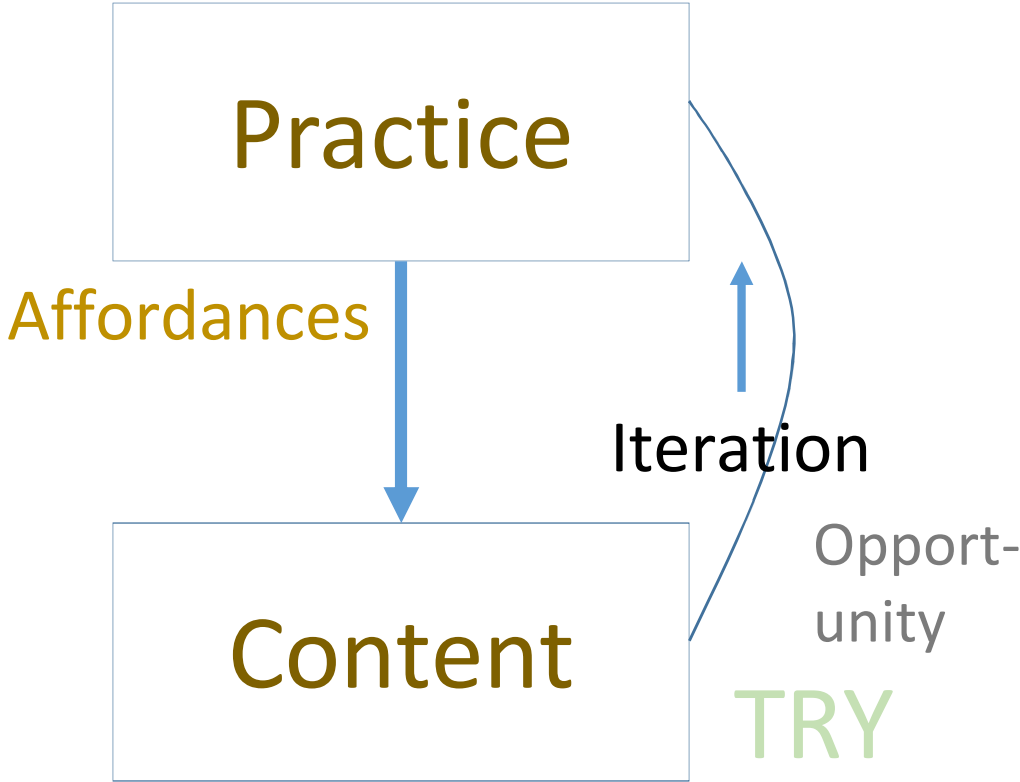


Person tests you

Personal

You do for yourself

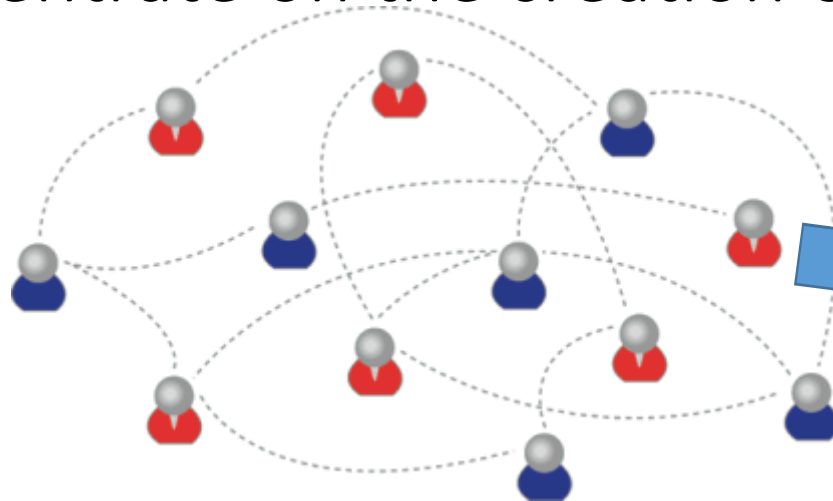
Defines a desired state



Person helps you

How to Create a cMOOC

- It's like creating a network
- Don't centralize
- Concentrate on the creation of links



We use social networks...

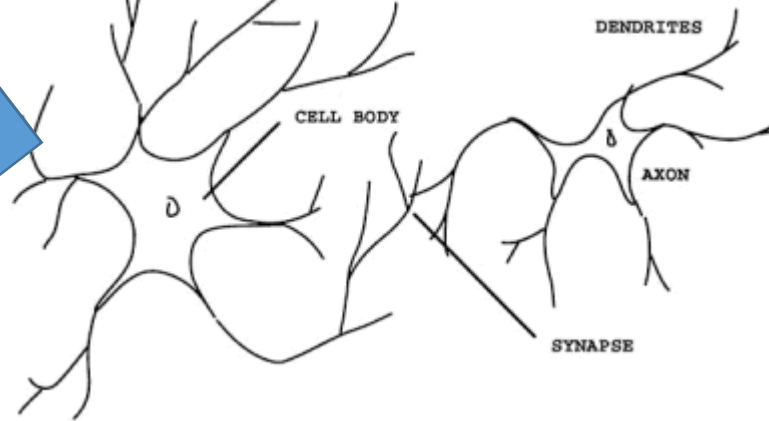
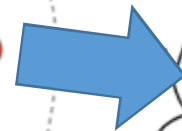
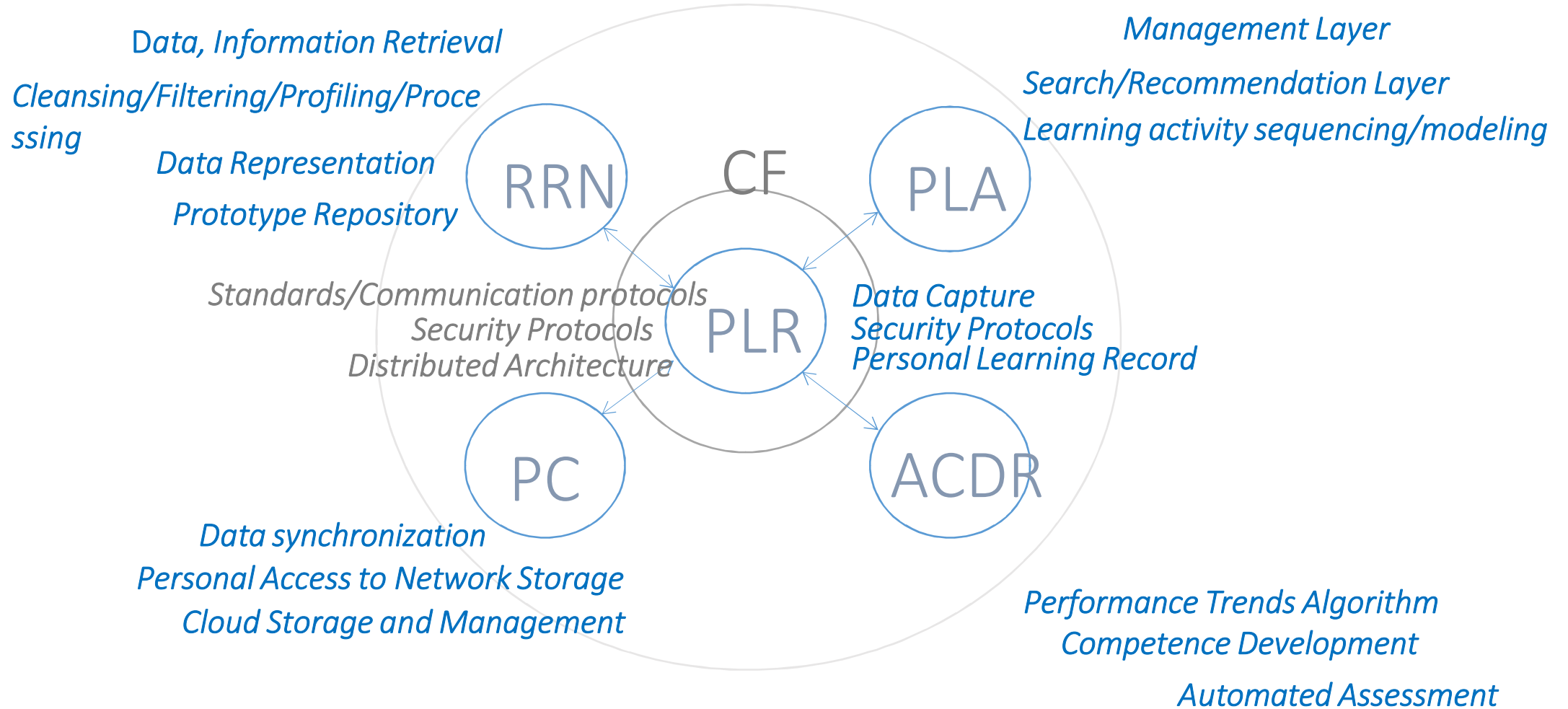


Figure 1. Biological Neuron

... to create personal knowledge

LPSS (Learning & Performance Support Systems)



LPSS is Built Around the Personal Learning Record

This is a *new* type of data – we call it the *personal graph*.

Each person has their own *private* personal graph.

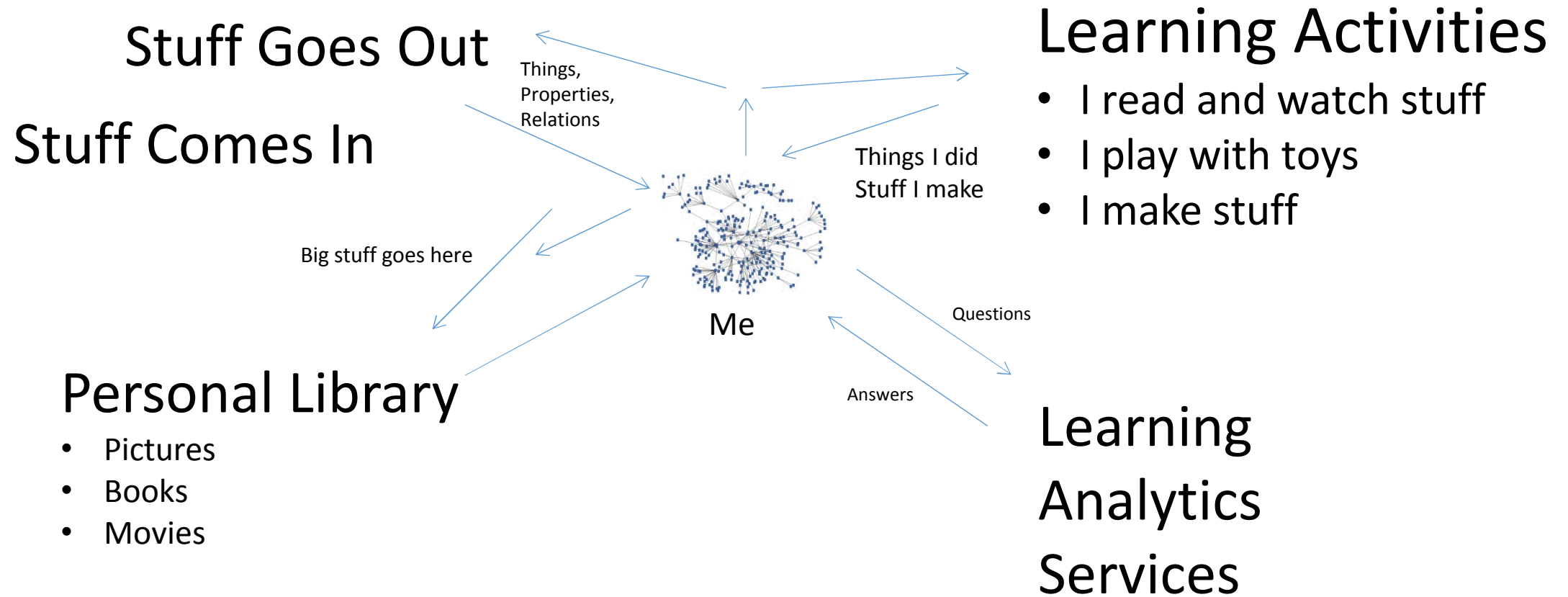


Me

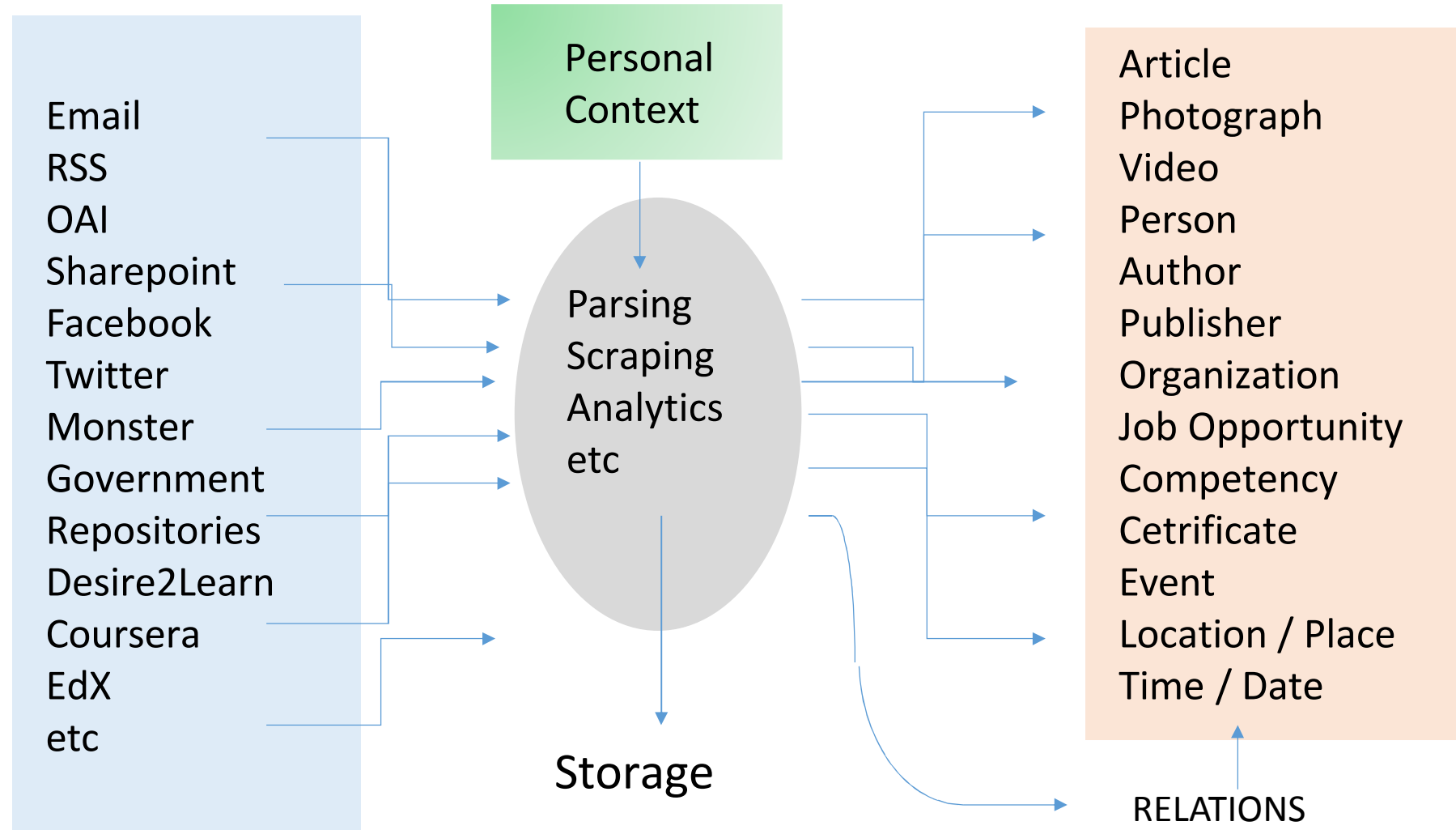
The PLR contains all a person's learning records, including:

- certificates, badges and credentials
- activity records, test results, scores
- Assignments, papers, drawings, things they create

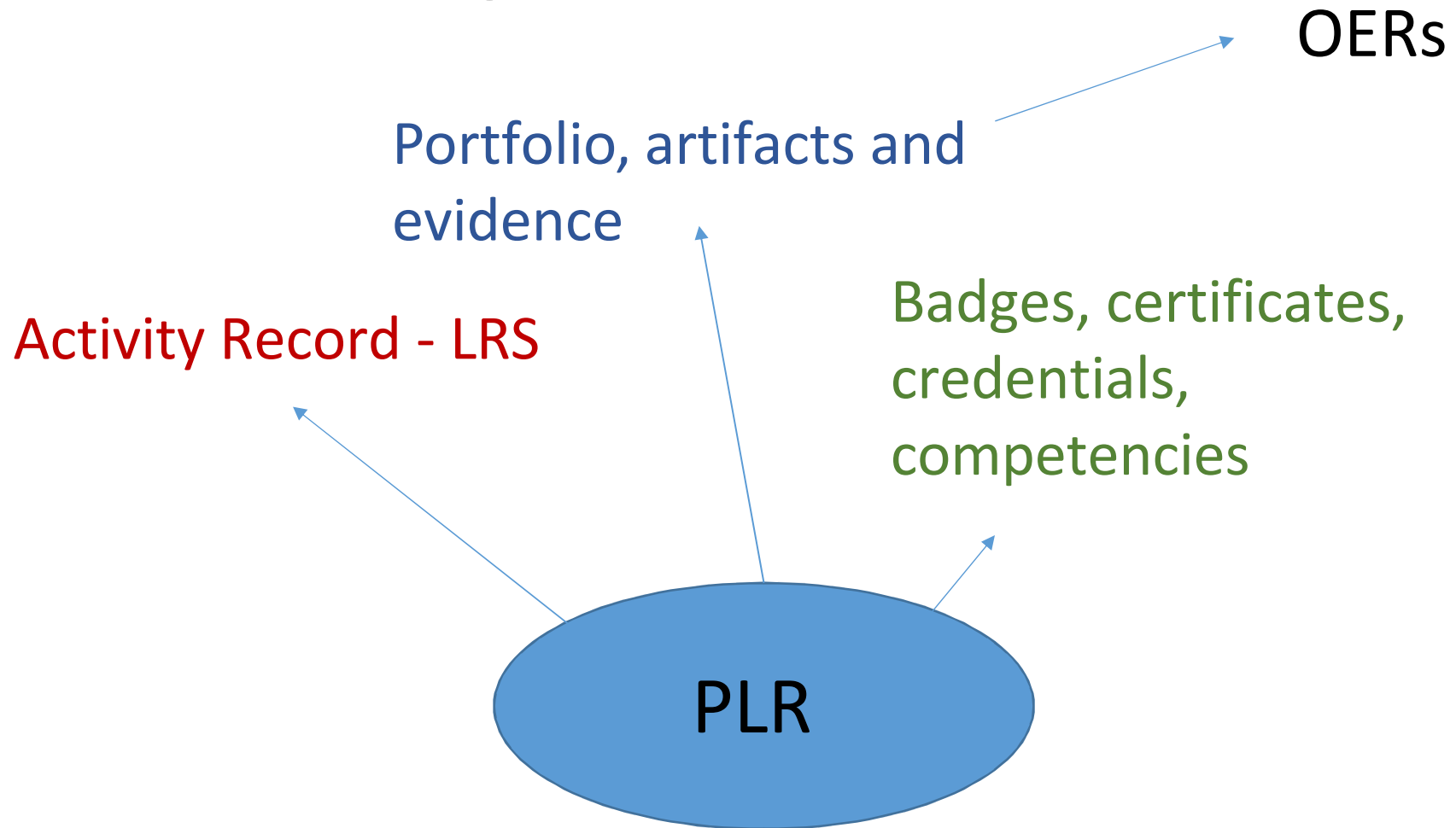
LPSS is Built Around the Personal Learning Record



RRN Aggregation and Storage

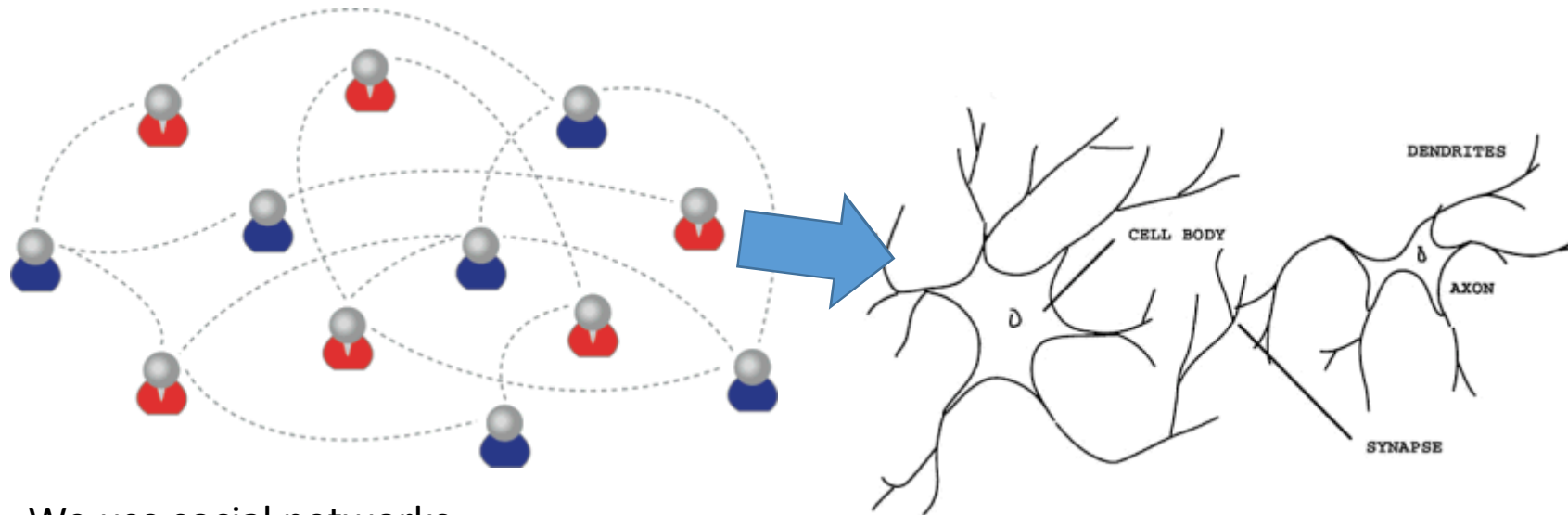


Personal Learning Record



What is Learning?

- Engagement and experience in professional networks
- *We grow* our knowledge and capacities



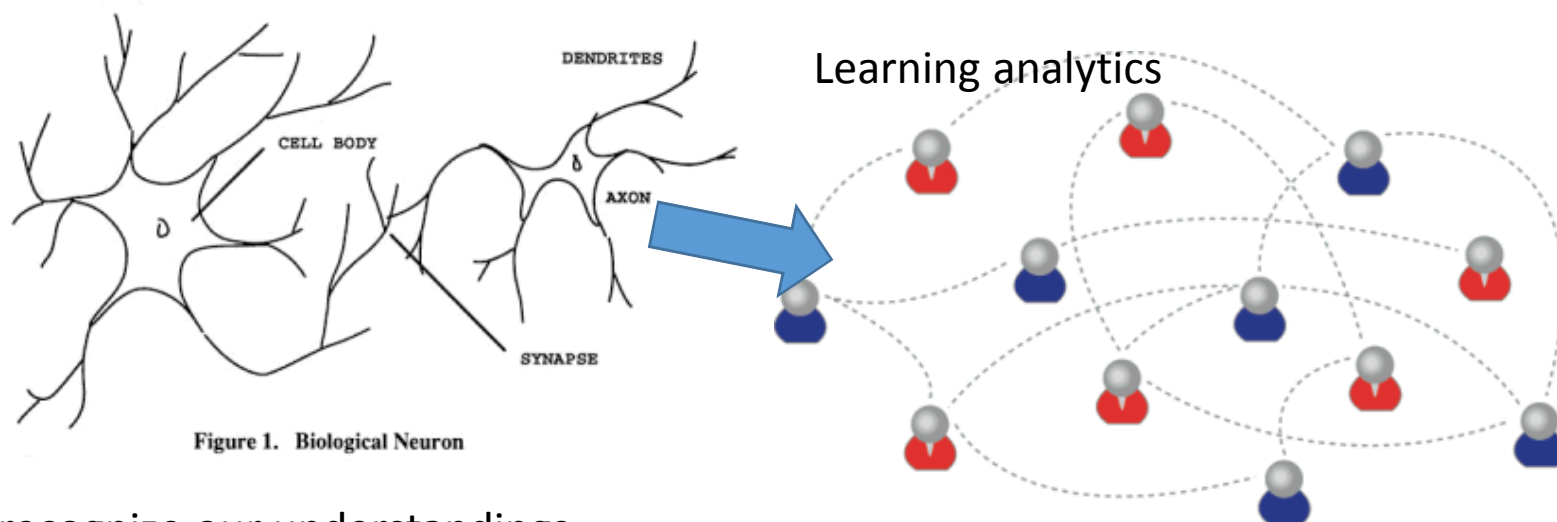
We use social networks...

Figure 1. Biological Neuron

... to create personal knowledge

How to Evaluate Learning

- Learning is not possession of a collection of facts, it's the expression of a capacity
- Learning is recognized by a community of experts in a network



We recognize our understandings...

...by the way we use them in our social network

Medical Simulations



<http://www.army.mil/article/127148/>



<http://www.83degreesmedia.com/features/camls011012.aspx>

Flight Simulators



<http://www.cae.com/World-s-first-AW189-full-flight-simulator-ready-for-training/>



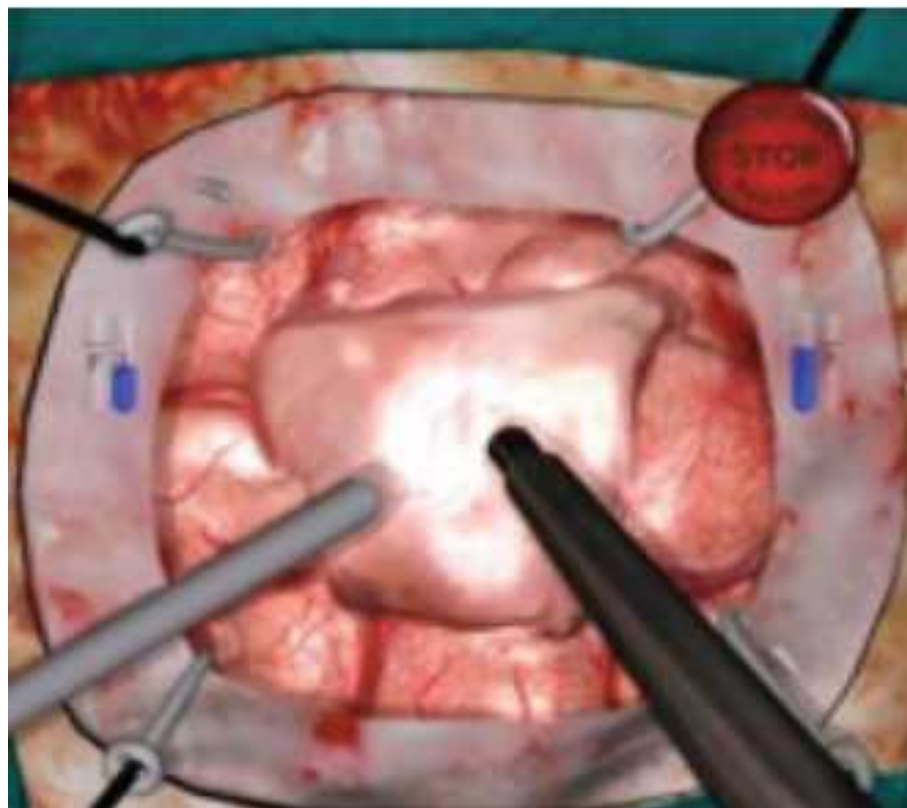
<http://www.aiac.ca/canada-aerospace-industry/success-stories/cae-nh90-helicopter-simulator/>

MINT - Mobile INteractive Trainer



<http://www.downes.ca/post/59876>

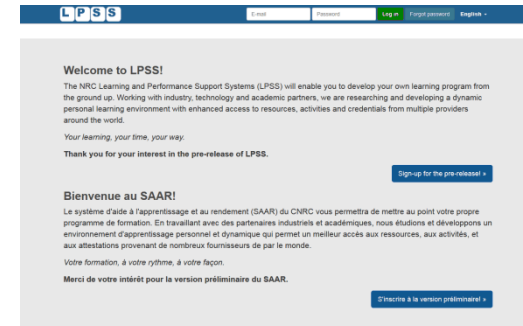
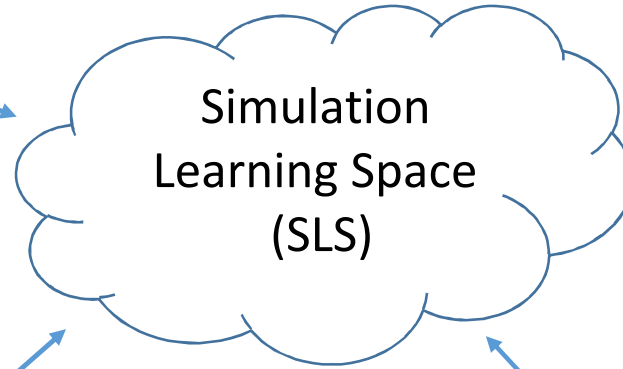
NeuroTouch Simulator



Sim-Welding



LPSS-Sim Project Overview



Combining Experiences

One place for all simulation experience

The image displays a web-based simulation learning space. On the left is a dark sidebar menu titled "Simulation Learning Space" with a "Simul:" label. The menu lists several categories: "Instrument Handling" (with a close 'x' icon), "Suction" (with a plus '+' icon), "Ultrasonic Aspirator" (with a close 'x' icon), "Ultrasonic Aspirator 102" (with a close 'x' icon), "2015-02-11 13:40:33", "2015-04-10 15:52:12", "Bipolar" (with a plus '+' icon), "Microscissors" (with a plus '+' icon), "Fundamental Skills" (with a plus '+' icon), and "Spine Surgery" (with a plus '+' icon). A grey arrow points from the "Suction" item in the sidebar to the main dashboard.

The main dashboard, titled "Simulation Learning Space", includes a navigation bar with "Simulators", "Home", "Scenarios", and "NT Account". The central content area is divided into two main sections:

- Scenarios' History:** Displays details for "Exercise: Suction 101" by user "admin" on "May 25 12:37:30 2015". It shows a "Previous Attempt" on "May 25 10:23:08 2015". A box indicates "Image Not Found". An "Overall Score History" chart shows a score of 50% on the first attempt and 100% on the second. A table of metrics is shown below:

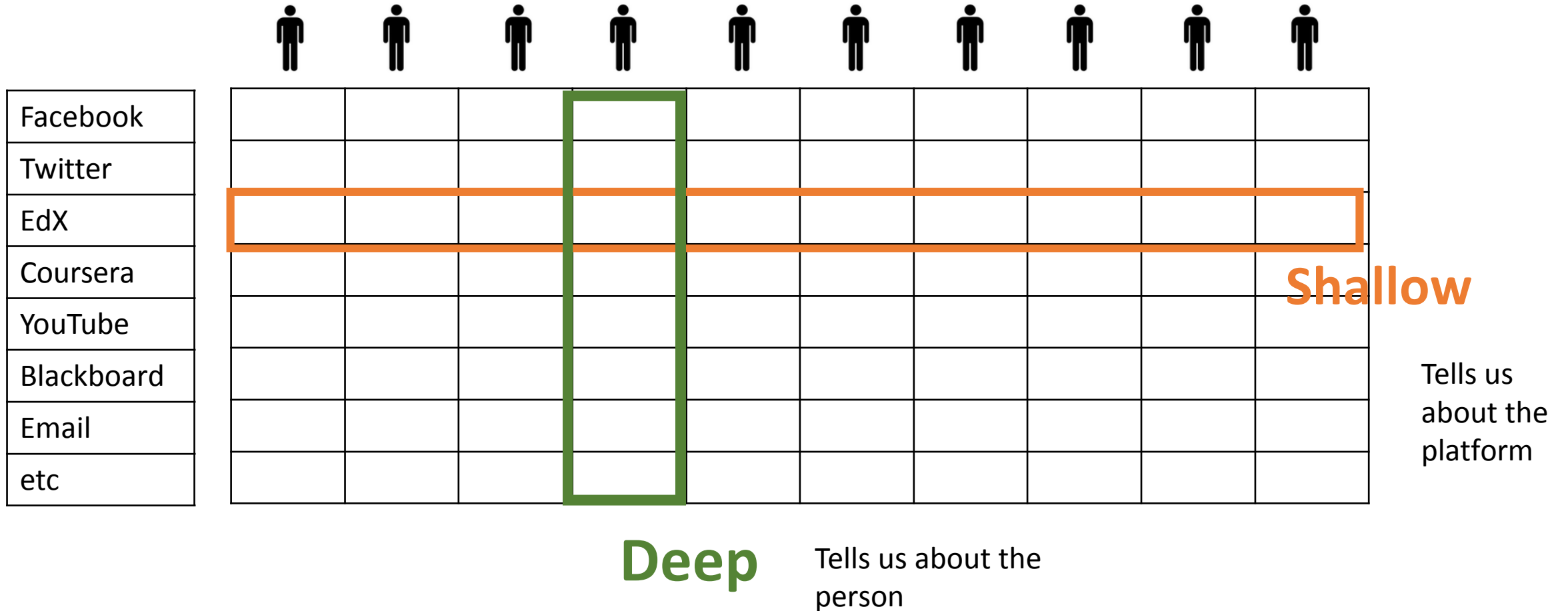
Metrics	Value	Grade
Blood remaining	0.14 cc	0%
Tissue removed	0.0 cc	0%
Time LH excessive force	0.0 s	0%
Time RH excessive force	4.02 s	50%

Overall Score: -50/100

- Recommendations:** A section titled "Recommendations" with a sub-header "Recent Track & Comments" showing a small video thumbnail of a simulation.

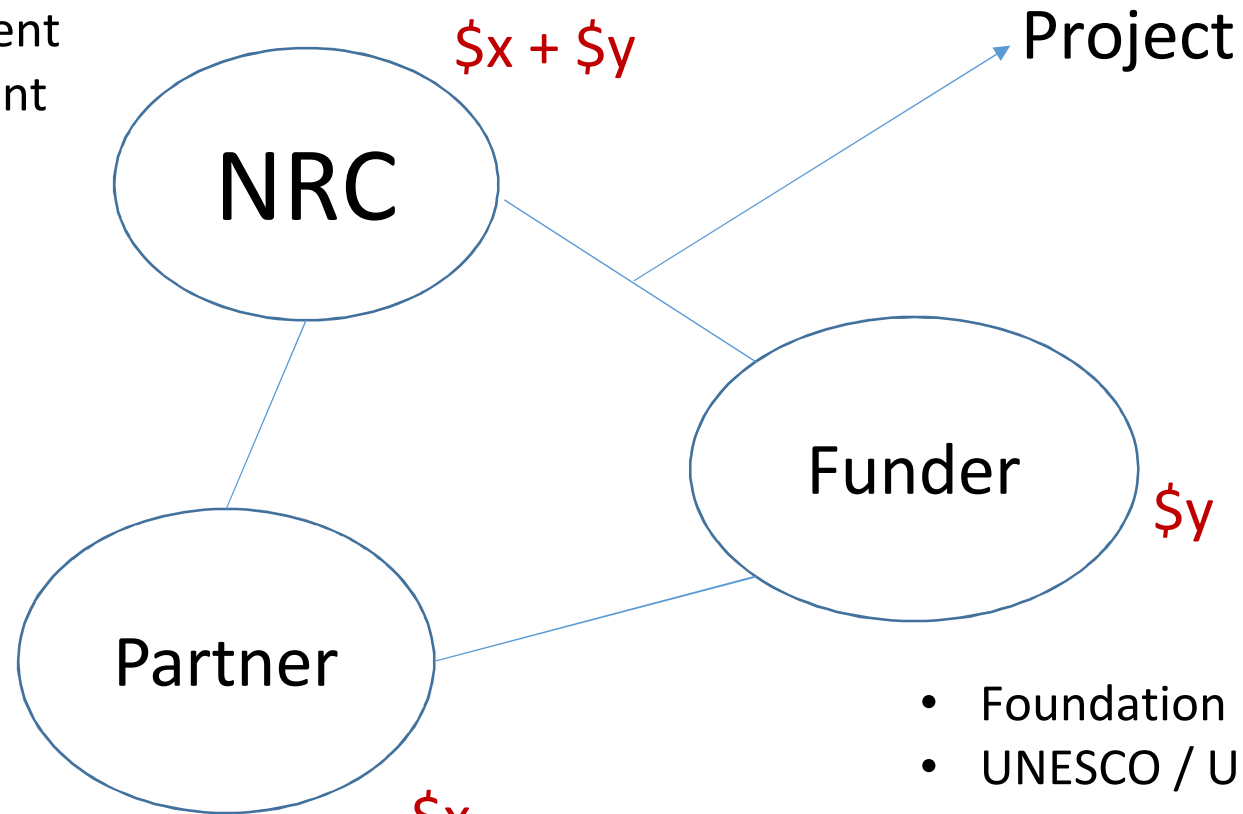
All performance results no matter where and when they were carried out

Analytics and Big Data



Expanding LPSS

- \$20 Million Investment
- NRC Technologies
- Development Environment



- University
- Government
- Development Agency

- Foundation
- UNESCO / UN
- Corporate Partner



Stephen Downes

<http://www.downes.ca>